

DRAFT AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 09/874,219
Attorney Docket No.: Q64862

REMARKS

Claims 1-15 are all the claims pending in the application. Claims 1-15 presently stand rejected. In addition, Applicant adds claim 16.

Preliminary Matters

Applicant filed Information Disclosure Statements on April 14, 2001, July 1, 2003, and September 24, 2003. A review of the Image File Wrapper on the USPTO Pair website confirms that the Office has received all three of the Information Disclosure Statements filed by the Applicant, *see* enclosed “Transaction History” printed off the USPTO Pair website. The Examiner is respectfully requested to return the initialed PTO/SB/08 forms with the next Office communication.

Summary of the Office Action

The Examiner withdrew the previous rejections. The Examiner, however, found new grounds for rejecting the claims. Claims 1-3, 7-9, and 13-15 are rejected under 35 U.S.C. § 102(e) and claims 4-5 and 10-12 are rejected under 35 U.S.C. § 103(a).

Claim Rejections

Claims 1-3, 7-9, and 13-15 are rejected under 35 U.S.C. § 102(e) as being unpatentable over U.S. Patent No. 6,392,990 to Tosey et al. (hereinafter “Tosey”). Applicant respectfully traverses this rejection in view of the following remarks.

Claims 1-3 and 13-15

To begin independent claim 1 recites, among a number of unique features, “circularly connecting the hubs with each other; and inactivating one of lines between adjoining two hubs.” The Examiner alleges that Tosey’s hubs are circularly connected with each other via connection lines 41, 45, 44, and 51 and that reassigning an IP address associated with the failed network interface card is equivalent to inactivating one of the lines between adjoining hubs (*see* page 3 of the Office Action). Applicant respectfully submits that this rejection is technically inaccurate for at least the following reasons.

Tosey relates to implementing network redundancy in a paging network (col. 1, lines 5 to 10). That is, Tosey discloses recovering transparently from a network interface failure by having redundant network interfaces connected with redundant cables. In Tosey, first, an address list of the peer computing devices on the subnet is established. The computing device then periodically tests the communication link with one or more of the peer computing devices until at least one peer device responds thereby sending its network address. The computing device then uses the peer network address to retest the communication link with the peer device until the peer device does not respond. If there is no response, the computing device reassigns the network address of the computing device from the primary network interface to the redundant network interface. This substantially reduces or eliminates disruptions in network connections established by computer applications or other higher layer connections (*see* Abstract and col. 3, lines 20 to 52).

Specifically, Tosey discloses a computer network system 30 with a redundant cluster of network computing devices 31 and 32 (a personal computers), as well as redundant network

DRAFT AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 09/874,219
Attorney Docket No.: Q64862

interface connections 37-40 (Fig. 3; col. 4, lines 45 to 52). Tosey discloses that each network computing device 31 and 32 may automatically recover from a network failure when one or more network interface cards 37-40 fail. For instance, if the first interface card 37 fails, then network computing device A 31 will switch data communications to the second network interface card 38. If the second network interface card 38 fails, then all network tasks of network computing device A will be taken over by the network computing device B 32 using its first network interface card 39, and so on. This method may also apply to systems with more than two redundant network computing devices. If additional network computing devices are added to the network 30, each network computing device would be connected to each of the hubs 33 and 34 in the same manner as the network computing devices 31 and 32 (Fig. 3; col. 5, lines 4 to 20).

In Tosey, the network 30 may also include an additional interconnection 51 which creates a cluster configuration for a computer local area network. This interconnection 51 may include an ATM, ethernet, FC or other like connections. The interconnection 51 can be used by the network computing devices 31 and 32 to detect a network failure. It may also be used to coordinate general application processes between the computing devices 31 and 32. Tosey, however, is no different from the prior art disclosed in the specification. In Tosey, it is not the hubs that are circularly connected to each other but rather the computing devices are connected to each other via one line 51 as well as connected to the hubs. That is, in Tosey, the cluster is formed out of the computing devices, hubs, and routers. In Tosey, however, the hubs are not circularly connected with each other. As depicted in Fig. 3 of Tosey, the hubs are connected to

DRAFT AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 09/874,219
Attorney Docket No.: Q64862

each other only via one connection line *i.e.*, line 45. This line is not even described in Tosey's disclosure. In short, Tosey fails to teach or suggest circularly connecting the hubs with each other. In Tosey, only a conventional technique of having one line connection between the hubs is disclosed.

Moreover, Tosey fails to teach or suggest inactivating one of the lines between adjoining hubs. Tosey only depicts one connecting line between two hubs *e.g.*, Fig. 3, line 45. However, no description with respect to this line is provided. With respect to the failure detection techniques, Tosey only discloses detecting a failure and reconfiguring the redundant network card of the computing device with an active IP address (col. 6, line 6 to col. 7, line 13). That is, if a failure of a network interface is detected, the computing device is switched to another connection. That is, it is the line connecting the computing device that experienced failure and not the line between two adjoining hubs.

Therefore, "circularly connecting the hubs with each other; and inactivating one of lines between adjoining two hubs," as set forth in claim 1 is not taught or suggested by Tosey, which lacks circularly connecting hubs to each other and inactivating one of the lines between adjoining two hubs. For at least these exemplary reasons, Applicant respectfully submits that claim 1 is patentable over Tosey. Therefore, Applicant respectfully requests the Examiner to withdraw this rejection of claim 1. Claims 2, 3, and 13-15 are patentable at least by virtue of their dependency.

Moreover, dependent claim 15 recites: "when the plurality of hubs detect that one of the activated lines is unavailable, the plurality of hubs activate the inactive line." The Examiner alleges that Tosey's disclosure of reassigning IP address from one network card to another meets

DRAFT AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 09/874,219
Attorney Docket No.: Q64862

these unique features of claim 15 (*see* page 4 of the Office Action). Applicant respectfully disagrees. In Tosey, however, as pointed out by the Examiner, it is the network computing device (alleged terminal) that reassigns the IP address. That is, Tosey fails to teach or suggest having the hubs detect a fault and activate another line. In Tosey, the failure detection is performed by the computing devices and not the hubs. For at least this additional exemplary reason, claim 15 is patentable over Tosey.

Claim 7-9

Claim 7 recites features somewhat analogous to the features argued above with respect to claim 1. Therefore, similar arguments are respectfully submitted to apply with equal force herein. For at least substantially the same exemplary reasons, claim 7 is patentable over Tosey. Claims 8 and 9 are patentable at least by virtue of their dependency on claim 7.

Claims 4-6 and 10-12

Claims 4 and 10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Tosey in view of U.S. Patent No. 6,594,231 to Byham (hereinafter “Byham”) and claims 5, 6, 11 and 12 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Tosey in view of U.S. Patent No. 6,176,710 to Ewing et al. (hereinafter “Ewing”). Applicant respectfully traverses these rejections in view of the following comments.

Claims 4-6 and 10-12 depend on claims 1 and 7, respectively. Applicant has already demonstrated that Tosey does not meet all the features of claims 1 and 7. Byham is only cited for its teaching of stackable hubs and Ewing is only cited for its teaching of a battery. Clearly

DRAFT AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 09/874,219
Attorney Docket No.: Q64862

Byham and Ewing fail to cure the deficient teachings of the Tosey. Therefore, claims 4-6 and 10-12 are patentable at least by virtue of their dependency on claims 1 and 7, respectively.

New Claim

In order to provide more varied, Applicant adds claim 16. Claim 16 is patentable at least by virtue of their dependency on claim 1.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly invited to contact the undersigned attorney at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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23373

CUSTOMER NUMBER

Date: August 24, 2005

Attorney Docket No.: Q64862